THE EVOLUTION OF SEXUAL PREFERENCE.

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OF the branches of biological science to which Charles Darwin's life-work has given us the key, few, if any, are as attractive as the subject of Sexual Selection. Apart from the intrinsic beauty of the phenomena themselves—the love-notes of song-birds, the flower-scented glands of butterflies, besides the wonderful development of plumage and ornaments among birds of every description—the subject is of more than usual interest for the glimpses which it yields us of animal psychology, and for the important influence which it has exerted, and is likely still more to exert in the future, upon the evolution of mankind.

The objection raised by Wallace (Darwinism, Chapter X.) that animals do not show any preference for their mates on account of their beauty, and in particular that female birds do not choose the males with the finest plumage, always seemed to the writer a weak one; partly from our necessary ignorance of the motives from which wild animals choose between a number of suitors; partly because there remains no satisfactory explanation either of the remarkable secondary sexual characters themselves, or of their careful display in love-dances, or of the evident interest aroused by these antics in the female; and partly also because this objection is apparently associated with the doctrine put forward by Sir Alfred Wallace in the same book, that the artistic faculties in man belong to his "spiritual nature," and therefore have come to him independently of his "animal nature" produced by natural selection. The strongest point in the objection undoubtedly is that the æsthetic sense in the lower animals is itself of unexplained origin. "Whence," it may be asked, "has this extremely uniform and definite taste for a particular detailed design of form and colour arisen?" Granted that while this taste and preference prevails among

the females of the species, the males will grow more and more elaborate and beautiful tail feathers, the question must be answered "Why have the females this taste? Of what use is it to the species that they should select this seemingly useless ornament?"

The first step to a solution lies in the fact that the success of an animal in the struggle for existence is not measured only by the number of offspring which it produces and rears, but also by the probable success of these offspring. So that in selecting a mate from a number of different competitors, it is important to select that one which is most likely to produce successful children. Those animals which make this choice wisely will have the better chance of survival, and any innate bias which leads them to do so will itself be of survival value; it will tend as time goes on to increase in intensity, and to establish itself in the species in which it serves this purpose. The individual here faces a problem of extraordinary complexity, closely akin to, though not identical with, that of the eugenist, namely, the problem of selecting that type, out of those which present themselves, which is most in accord with the prevailing conditions of life, and which has the best chance of overcoming the enormous variety of dangers and difficulties with which every species is surrounded. The task of determining the different qualities and abilities needed for biological success, and of recognising and weighing them within a short acquaintanceship, is one by which the keenest observation, backed by the highest intelligence, might be baffled. It is not a little instructive to note the rough but effective means by which nature enables even creatures of low intelligence to attain this end with some success.

In every animal there are a few noticeable points or features which readily attract and arrest the attention; and of these it may be expected, in general, that some will be more conspicuous among the healthy, active and biologically fit, while others will be more noticeable in those less well endowed with health and vigour. Consider, as an example, two obvious human traits, red cheeks and strong-smelling breath. The one is generally associated with bodily health and vigour, the other with bad

digestion, ulcerated throat, or rotten teeth. It would be an advantage to primitive man, even if from the earliest times he had no æsthetic prepossessions, to find a bright complexion pleasant and attractive to him, and, for the same reason, tainted breath offensive. That these æsthetic tastes are not rooted in the nature of all animate creatures may be seen in the attraction exerted upon flies by the smell of carrion; while even so highly developed an animal as a cat will seek and eat bad fish, not through necessity of hunger, but with evident relish for its tastiness. We may well suppose, then, that the tastes of all living creatures were not diverted from the first by any universal bias, but were modified in the course of evolution, like their organs and faculties, in accordance with the biological needs of different species. The most difficult and important act of choice is the choice of a mate; and this would have been rendered possible in the first instance by focussing the mind, as yet unable to make any profound judgment, upon certain conspicuous points which readily attract attention, and which attain by Natural Selection an innate prejudice in their favour.

It is to be noticed that judgment by "points" requires no understanding or appreciation of beauty, and only a limited keenness of perception; once the point to be marked is grasped, the attention is fixed upon it, and different individuals are easily compared. Of this fact both Nature and Man make ready use. For in using the term "points" I deliberately wish to suggest a comparison between the judge at a pigeon show and the discriminating bird in the mating season. The problem before each is much the same; both have to choose the best out of a number of competing birds; for both the time is short, and full and complete knowledge of the individual constitutions of the different birds impossible. It is likely, therefore, that both achieve their task by means of conspicuous points, easily compared, which serve as standards of excellence. In both systems, no doubt, there are some features which should be developed in due proportion, some which cannot be too much exaggerated. Certain it is that nothing so grotesque and elaborate can be compared with our show productions, save the even more extravagant and magnificent plumage produced by Sexual Selection.

Consider, then, what happens when a clearly-marked pattern of bright feathers affords, in a certain species of birds, a fairly good index of natural superiority. A tendency to select those suitors in which the feature is best developed is then a profitable instinct for the female bird, and the taste for this "point" becomes firmly established among the female instincts. In order to examine the case more fully, let us suppose that the feature in question is in itself valueless, and only derives its importance from being associated with the general vigour and fitness of which it affords a rough index. Continued sexual selection, while increasing the perfection of the feature itself, would probably decrease its value as an index, since its elaboration might be expected to divert vital energy from other channels. So long, however, as it remains to any extent associated with general well-being, so long will the taste for it on the part of the females grow more and more pronounced. Even if, in the course of time, it ceases to be any index of vitality whatever, the taste for it would continue to increase in strength, if it has already become strong, because although the offspring show no general superiority in the ordinary course of life, they retain their ascendancy in sexual selection, and have, therefore, a better chance of surviving; it is only when a feature has become so harmful as to overbalance this advantage that the taste for it among the females will have reached its maximum and will begin to diminish. We may, therefore, observe three phases in the history of a secondary sexual trait. In the first it is favoured by natural selection, and being simple and easily apprehended as a "point," its advantage is slowly increased by the development of sexual selection in its favour; in the second phase it owes nothing to natural selection, which may even have turned against it, but it still increases in splendour and perfection, and the importance attached to it by the opposite sex still increases, so long as it retains a balance of advantage. Finally, perhaps, an equilibrium will be attained in which natural selection just balances sexual selection. But this equilibrium must be expected in general to be broken by the rise of other "points" of interest and import-

ance, and will be followed by the gradual decay both of the feature itself, and in the appreciation of it by the opposite sex.

Among mankind the conditions are far more favourable for the higher development of sexual selection. The majority of children are produced by monogamous and lasting marriages, so that the choice of a mate is of more importance among mankind than among most other animals. In addition, the intellectual development of man enables him to rise above the mere assessment of desirable "points." He can attain a fuller knowledge and understanding of his mate than could be expressed in a catalogue of her charms. In particular the conception of desirable points has given way to the conception of beauty; and here mankind has taken the first great step in the development of higher sexual instincts. A synthesis has been achieved. We do not need to analyse an object of beauty into details and features, we can receive the total impression and appreciate it with understanding. The minutiæ have now no importance for us save in their relation to the whole. A new category of valuations has arisen. We need no longer say short or tall, bright or dull, we can say at once, with insight and appreciation, beautiful or ugly. We do not analyse our appreciation into an adding up of points; no one with a feeling for the higher category would appeal to the lower, any more than one would suspend judgment upon the merits of a passage of literature until it had been analysed by a philologist. Although, in fact, the philologist could formulate points which are characteristic of good style; just as the points of the pigeon fancier are nothing more than a crude formulation of the owner's appreciation of his most beautiful birds. The æsthetic category of valuation represents an immense advance in human understanding, made possible by the intellectual development of mankind; and there can, I think, be little doubt that it arose as an intellectual synthesis of the innumerable points, each a factor of sexual preference, which an enlarging intelligence would learn to harmonise.

We may not, however, be satisfied that we understand the origin of æsthetic judgments unless we take a wider view and inquire what the future will require of us. For we have seen

that man, perhaps more than any other animal, has need of the ability to choose the right mate. The choice is more wide, and the step more irrevocable than with other species. Yet we see that the æsthetic category of valuations, important as it is, is very far from being adequate for the complete representation of human personality. An even higher synthesis already claims our chief attention. Our most important judgments are expressed in terms of right and wrong, good and evil. The ethical category asserts its predominance because it probes deeper into human nature; it judges conduct and behaviour; it estimates the character from which actions flow. Beside the ethical standards the momentary appearance, even though fully appreciated and understood, is of little more value than the "points" of the pigeon fancier. A higher measure of imagination and constructive insight are here needed in the interpretation of conduct in terms of motives, and in the appeal to those ethical standards by which motives may be valued. Here, again, a further and deeper synthesis has been achieved; we proceed again from the particular to the general—from canons of beauty to principles of right. Just as no one to whom beauty speaks will avail himself of detailed measurement for comparison, so one who feels the force and magnitude and irresistible claim of ethical principles will place the importance of the beauty of appearance as chaff in the balance.

In the sexual selection of mankind, therefore, beauty and character provide standards of universal currency. Everywhere we see the power of beauty of form, colour, voice, expression and grace of movement; everywhere also the charms and merits of character dominate our judgments. And this is of the greatest service to sexual selection, in that it enables canons of beauty and principles of conduct to replace the mere taste for special points. Canons of beauty, for example, having become ingrained and imbedded among the sexual instincts, afford criteria which remain valid under a great variety of external circumstances, not only of the cruder qualities of health and vigour, but of far more delicate graces and harmonies; in the same way as a just estimate of moral character provides more reliable information than we could gather from any particular

act. Such standards of excellence, which, to a mind capable of apprehending them, are themselves perfectly simple, will become imbedded in the sexual nature of any race of sufficient intellectual development, and have already certainly appeared among the higher races of mankind.

Certain other sources of human valuations exist besides sexual selection; and these have particularly affected the development of the moral faculty. We continually come in contact with what can only be described as valuations of complemental types. They express the social and co-operative needs of mankind, and to this extent are an index of individual insufficiency. Thus a master requires a willing servant, a servant a lenient master. Those who cannot rely upon themselves require considerate and helpful neighbours. The praise of these virtues may be regarded as a sort of payment for their manifestation, and a ratification of social bonds. It is, no doubt, essential to the smooth working of a mutually dependent community. But let us not confuse the interested and necessary praise of these moral qualities for the simple and fundamentally genuine allegiance to those principles of right which form the third stepping-stone in the advance of sexual selection. In truth morality seems to have two distinct roots—regard for the social group, and regard for the future. It is from the first of these that spring all the moral valuations of mutual dependance. Upon the second, only, does the advance of sexual selection depend. The admiration of qualities, which as social animals we are accustomed to praise, if our admiration has no sounder root, can be nothing but a source of confusion and error to the eugenist. His interest is the same as that of the parties in sexual selection, to determine and choose the human types which on all grounds are the best, and the sexual selection of thousands of preceding generations supply him with his true ideals. In the infinite variety of human experience, which the past history of our race has afforded, in complete savagery, in nomadic barbarism, and in settled civilisation, both rural and urban, in warfare and love, in hunting, agriculture, lawsuits and commerce, the general grounds of our judgments of human excellence have built themselves up, and entwined themselves with

our sexual nature. It is only under the influence, and during the growth of sexual attraction, that we can hope that these judgments will fully reveal themselves. Only the strongest passion could possibly free one from the bias of æsthetic and moral ideals, which accident and inappropriate teaching and surroundings may have ingrained in the character. It is probable that only the intense personal interest of growing love can arouse that acuteness of perception, that freedom and certainty of interpretation, and that profound resonance of assured understanding, by which alone the finer, rarer and more elusive traits of human excellence may be apprehended.

We have seen that these main categories of human judgment have been successively required by the needs of sexual selection, which continually demands that the individual shall make in his choice of a mate the wisest possible judgment which his intellectual limitations allow. That is to say, it is necessary, if evolution is to continue in this direction, that we should attain to more and more complete concepts of human personality. There is no doubt that that is the aim of these successive syntheses. Mankind is struggling upward to the intellectual plane at which it will be able to understand and to value human nature in its entirety. Progress in this direction must be slow. At the present time too many have not sufficient depth and power of abstraction to grasp the essence of an ethical principle. Too many find it easier to enumerate details than to appreciate beauty. In addition it is improbable that human intellect is at present making any progress, despite the long journey by which it falls short of our highest needs. Nevertheless, there are signs that the highest category of valuations is not altogether unfamiliar. In the struggle between ethical and æsthetic valuations a curious phenomenon is observable. To the ordinary man the distinction is clear. Beauty is superficial, moral worth fundamental. Beauty interests and pleases the senses, morality governs our motives and guides our actions. And so it comes about that Ephemeral Beauty weighs less than Eternal Right. But in the deepest minds the idea of beauty links itself with one of altogether higher significance; in fact, with nothing less than the mystical appreciation of human personality. Here is the

highest plane, and the source from which all our valuations in the lower categories take their value. Here we pass, like Nietzsche, beyond Good and Evil. Morality ceases to be arbitrary and dogmatic, but takes its place as a particular formulation of the requirements of the Highest Man—of our ultimate judgments of human value.